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Baun, Anders; Friis-Nielsen, Joan; Andersen, Tobias H.; Wollenberger, Leah; Kusk, Kresten Ole

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Pulse exposure - Delayed responses of *Daphnia magna*



Anders Baun*, Joan Friis-Nielsen, Tobias H. Andersen,
Leah Wollenberger and K. Ole Kusk
Environment & Resources DTU

Technical University of Denmark, Building 115, DK-2800 Kgs. Lyngby, Denmark
*anb@er.dtu.dk / www.er.dtu.dk

Introduction

Intermittent discharges of xenobiotic chemicals to the aquatic environment occur frequently e.g. during spraying of pesticides, industrial discharges, and rain events. These pulse exposures lead to short-term high concentrations which may have significant toxic effects on organisms in the receiving waters. However, the effects of this type of exposure is seldom studied. In the present study we propose and evaluate a method for quantification of the effects of pulse exposure (PulseM) using *Daphnia magna* as test organism.

Materials and methods

In the PulseM test, new-born daphnids are exposed to high concentrations of chemicals/effluent in pulses ranging from 0.5-6 hours. The test organisms are transferred to clean water and their mobility is observed in a post-exposure period of 48 hours. The method was applied to *m*-cresol, 3,5 dichlorophenol, potassium dichromate, the pesticides pirimicarb and dimethoate, and two industrial effluents.

Test procedure

Results

Conclusions

